



Substitute Senate Bill No. 957

Public Act No. 15-222

AN ACT CONCERNING REVISIONS TO THE REGENERATIVE MEDICINE RESEARCH FUND AND THE CONNECTICUT BIOSCIENCE INNOVATION FUND, AND THE CONSOLIDATION OF CERTAIN FUNDS OF CONNECTICUT INNOVATIONS, INCORPORATED.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Subsection (a) of section 32-41jj of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2015*):

(a) As used in sections 32-41jj to 32-41mm, inclusive, as amended by this act, and section 4-28e:

(1) "Embryonic stem cell research oversight committee" means a committee established in accordance with the National Academies' Guidelines for Human Embryonic Stem Cell Research, as amended from time to time.

(2) "Cloning of a human being" means inducing or permitting a replicate of a living human being's complete set of genetic material to develop after gastrulation commences.

(3) "Gastrulation" means the process immediately following the blastula state when the hollow ball of cells representing the early

Substitute Senate Bill No. 957

embryo undergoes a complex and coordinated series of movements that results in the formation of the three primary germ layers, the ectoderm, mesoderm and endoderm.

(4) "Embryonic stem cells" means cells created through the joining of a human egg and sperm or through nuclear transfer that are sufficiently undifferentiated such that they cannot be identified as components of any specialized cell type.

(5) "Nuclear transfer" means the replacement of the nucleus of a human egg with a nucleus from another human cell.

(6) "Eligible institution" means (A) a nonprofit, tax-exempt academic institution of higher education, (B) a hospital that conducts biomedical research, or (C) any entity that conducts biomedical research or regenerative medicine research.

(7) "Regenerative medicine" means the process of creating living, functional tissue to repair or replace tissue or organ function lost due to aging, disease, damage or congenital defect. Regenerative medicine includes basic stem cell research.

(8) "Financial assistance" means any and all forms of grants, extensions of credit, loans or loan guarantees, equity investments or other forms of financing.

Sec. 2. Section 32-41kk of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2015*):

(a) There is established the "Regenerative Medicine Research Fund", which shall be a separate, nonlapsing account within the General Fund. The fund may contain any moneys required or permitted by law to be deposited in the fund and any funds received from any public or private contributions, gifts, grants, donations, bequests or devises to the fund. The chief executive officer of Connecticut Innovations,

Substitute Senate Bill No. 957

Incorporated, (1) shall [make grants-in-aid] award financial assistance from the fund in accordance with the provisions of subsection (b) of this section, and (2) may enter into agreements with other entities, including, but not limited to, the government of any state or foreign country for the purpose of advancing research collaboration opportunities for recipients of [grants-in-aid] financial assistance under this section.

(b) The Regenerative Medicine Research Advisory Committee established pursuant to section 32-41ll, as amended by this act, shall develop an application for [grants-in-aid] financial assistance under this section for the purpose of conducting regenerative medicine research and may receive applications from eligible institutions for such [grants-in-aid] financial assistance. The Regenerative Medicine Research Advisory Committee shall require any applicant for [a grant-in-aid] financial assistance under this section to conduct regenerative medicine research to submit (1) a complete description of the applicant's organization, (2) the applicant's plans for regenerative medicine research and proposed funding for such research from sources other than the state, and (3) proposed arrangements concerning financial benefits to the state as a result of any patent, royalty payment or similar rights developing from any proposed research made possible by the awarding of such [grant-in-aid] financial assistance. The Regenerative Medicine Research Advisory Committee shall direct the chief executive officer of Connecticut Innovations, Incorporated, with respect to the awarding of such [grants-in-aid] financial assistance after considering recommendations from [the Regenerative Medicine Research Peer Review Committee established pursuant to section 32-41mm] peer reviewers pursuant to section 32-41mm, as amended by this act.

(c) Commencing with the fiscal year ending June 30, 2006, and for each of the thirteen consecutive fiscal years thereafter, until the fiscal

Substitute Senate Bill No. 957

year ending June 30, 2019, not less than ten million dollars shall be available from the Regenerative Medicine Research Fund for [grants-in-aid] financial assistance to eligible institutions for the purpose of conducting regenerative medicine research. Any balance of such amount not used for such [grants-in-aid] financial assistance during a fiscal year shall be carried forward for the fiscal year next succeeding for such [grants-in-aid] financial assistance.

Sec. 3. Section 32-41*ll* of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2015*):

(a) (1) There is established a Regenerative Medicine Research Advisory Committee. The committee shall consist of the Commissioner of Public Health, or the commissioner's designee, the chief executive officer of Connecticut Innovations, Incorporated, or the chief executive officer's designee, and eight members who shall be appointed as follows: Two by the Governor, one of whom shall have background and experience in stem cell or regenerative medicine research and one of whom shall have background and experience in business or financial investments; one each by the president pro tempore of the Senate and the speaker of the House of Representatives, who shall have background and experience in private sector regenerative medicine research and development; one each by the majority leaders of the Senate and House of Representatives, who shall be academic researchers specializing in regenerative medicine research; one by the minority leader of the Senate, who shall have background and experience in either private or public sector regenerative medicine research and development or related research fields, including, but not limited to, embryology, genetics or cellular biology; and one by the minority leader of the House of Representatives, who shall have background and experience in the field of bioethics. Members shall serve for a term of four years commencing on October first, except that members first appointed by

Substitute Senate Bill No. 957

the Governor and the majority leaders of the Senate and House of Representatives shall serve for a term of two years. No member may serve for more than two consecutive four-year terms. All initial appointments to the committee shall be made by October 1, 2005. Any vacancy shall be filled by the appointing authority.

(2) The Regenerative Medicine Research Advisory Committee shall include eight additional members who shall be appointed as follows: Two by the Governor, who shall have backgrounds and experience in business or financial investments; one each by the president pro tempore of the Senate and the speaker of the House of Representatives, who shall have background and experience in private sector regenerative medicine research and development; one each by the majority leaders of the Senate and House of Representatives, who shall be academic researchers specializing in regenerative medicine research; one by the minority leader of the Senate, who shall have background and experience in either private or public sector regenerative medicine research and development or related research fields, including, but not limited to, embryology, genetics or cellular biology; and one by the minority leader of the House of Representatives, who shall have background and experience in business, law or ethics. Members shall serve for a term of four years, except that (A) members first appointed by the Governor and the majority leaders of the Senate and House of Representatives pursuant to this subdivision shall serve for a term of two years and three months, and (B) members first appointed by the remaining appointing authorities shall serve for a term of four years and three months. No member appointed pursuant to this subdivision may serve for more than two consecutive four-year terms. All initial appointments to the committee pursuant to this subdivision shall be made by July 1, 2006. Any vacancy shall be filled by the appointing authority.

(b) The chief executive officer of Connecticut Innovations,

Substitute Senate Bill No. 957

Incorporated, or the chief executive officer's designee, shall serve as chairperson of the Regenerative Medicine Research Advisory Committee.

(c) All members appointed to said advisory committee shall work to advance regenerative medicine research. Any member who fails to attend three consecutive meetings or who fails to attend fifty per cent of all meetings held during any calendar year shall be deemed to have resigned from said advisory committee.

(d) Notwithstanding the provisions of any other law, it shall not constitute a conflict of interest for a trustee, director, partner, officer, stockholder, proprietor, counsel or employee of any eligible institution, or for any other individual with a financial interest in any eligible institution, to serve as a member of said advisory committee. All members shall be deemed public officials and shall adhere to the code of ethics for public officials set forth in chapter 10. Members may participate in the affairs of said advisory committee with respect to the review or consideration of [grant-in-aid] applications for financial assistance, including the approval or disapproval of such applications, except that no member shall participate in the affairs of said advisory committee with respect to the review or consideration of any [grant-in-aid] application for financial assistance filed by such member or by any eligible institution in which such member has a financial interest, or with whom such member engages in any business, employment, transaction or professional activity.

(e) The Regenerative Medicine Research Advisory Committee shall (1) develop, in consultation with Connecticut Innovations, Incorporated, a donated funds program to encourage the development of funds other than state appropriations for regenerative medicine research in the state, (2) examine and identify specific ways to improve and promote for-profit and not-for-profit regenerative medicine research and research in related areas in the state, including, but not

Substitute Senate Bill No. 957

limited to, identifying both public and private funding sources for such research, maintaining existing regenerative medicine-related businesses, recruiting new regenerative medicine-related businesses to the state and recruiting scientists and researchers in such field to the state, (3) administer a regenerative medicine research [grant] assistance program that shall provide [grants-in-aid] financial assistance to eligible institutions for the advancement of regenerative medicine research in the state pursuant to section 32-41kk, as amended by this act, (4) monitor the regenerative medicine research conducted by eligible institutions that receive such [grants-in-aid] financial assistance, and (5) prepare a comprehensive strategic plan for the Regenerative Medicine Research Fund, established pursuant to section 32-41kk, as amended by this act, and [grants-in-aid made] financial assistance awarded from said fund that shall include, but need not be limited to, identification of specific methods or strategies to (A) achieve the scientific and economic development objective of said fund, (B) build innovation capacity, and (C) sustain investments of moneys received by said fund.

(f) Connecticut Innovations, Incorporated, shall serve as administrator of the Regenerative Medicine Research Fund and shall, in consultation with the Regenerative Medicine Research Advisory Committee: (1) Develop the application for the [grants-in-aid] financial assistance authorized under subsection (b) of section 32-41kk, as amended by this act; (2) review such applications; (3) review recommendations of [the Regenerative Medicine Research Advisory Committee, established] peer reviewers pursuant to section 32-41mm, as amended by this act; (4) prepare and execute any assistance agreements or other agreements in connection with the awarding of such [grants-in-aid] financial assistance; (5) develop performance metrics and systems to collect data from recipients of such [grants-in-aid] financial assistance; (6) collect information from such recipients concerning each recipient's employment statistics, business

Substitute Senate Bill No. 957

accomplishments and performance outcomes, peer review articles and papers published, partnerships and collaborations with other entities, licenses, patents and invention disclosures, scientific progress as it relates to the commercialization of intellectual property funded by such [grants-in-aid] financial assistance, efforts to commercialize such intellectual property, and other funds received for research; and (7) performing such other administrative duties as the Regenerative Medicine Research Advisory Committee deems necessary.

Sec. 4. Section 32-41mm of the general statutes is repealed and the following is substituted in lieu thereof (*Effective July 1, 2015*):

[(a) (1) There is established a Regenerative Medicine Research Peer Review Committee. Said peer review committee shall consist of five members.

(2) On and before September 30, 2014, all members appointed by the Commissioner of Public Health to the committee shall (A) have demonstrated knowledge and understanding of the ethical and medical implications of regenerative medicine research or related research fields, including, but not limited to, embryology, genetics or cellular biology, (B) have practical research experience in regenerative medicine research or related research fields, including, but not limited to, embryology, genetics or cellular biology, and (C) work to advance regenerative medicine research. Members shall serve for a term of four years commencing on October first, except that three members first appointed by the Commissioner of Public Health shall serve for a term of two years. No member may serve for more than two consecutive four-year terms and no member may serve concurrently on the Regenerative Medicine Research Advisory Committee established pursuant to section 32-41ll. All initial appointments to said peer review committee shall be made by October 1, 2005. Any member who fails to attend three consecutive meetings or who fails to attend fifty per cent of all meetings held during any calendar year shall be deemed to have

Substitute Senate Bill No. 957

resigned from said peer review committee.

(3) On and after October 1, 2014, each member appointed by the Commissioner of Public Health pursuant to subdivision (2) of this subsection may serve to the conclusion of his or her current term at which time members shall be appointed by the chief executive officer of Connecticut Innovations, Incorporated, as follows: Members appointed to said peer review committee shall: (A) Have demonstrated knowledge and understanding of the ethical and medical implications of regenerative medicine research or research in a related field, including, but not limited to, embryology, genetics or cellular biology; (B) have practical research experience in regenerative medicine research or research in a related field, including, but not limited to, embryology, genetics or cellular biology; and (C) work to advance regenerative medicine research. Members shall serve for a term of four years, except that three members first appointed by the chief executive officer of Connecticut Innovations, Incorporated, shall serve for a term of two years. No member may serve for more than two consecutive four-year terms and no member may serve concurrently on the Regenerative Medicine Research Advisory Committee established pursuant to section 32-411l. Any member who fails to attend three consecutive meetings or who fails to attend fifty per cent of all meetings held during any calendar year shall be deemed to have resigned from said peer review committee.

(b) All members shall be deemed public officials and shall adhere to the code of ethics for public officials set forth in chapter 10. No member shall participate in the affairs of the committee with respect to the review or consideration of any grant-in-aid application filed by such member or by any eligible institution in which such member has a financial interest, or with which such member engages in any business, employment, transaction or professional activity.

(c) Prior to the awarding of any grants-in-aid for regenerative

Substitute Senate Bill No. 957

medicine research pursuant to section 32-41kk, the Regenerative Medicine Research Peer Review Committee shall review all applications submitted by eligible institutions for such grants-in-aid and make recommendations to the Regenerative Medicine Research Advisory Committee established pursuant to section 32-41ll with respect to the ethical and scientific merit of each application.]

(a) Prior to the awarding of any financial assistance in response to an application submitted pursuant to section 32-41kk, as amended by this act, the Regenerative Medicine Research Advisory Committee, established pursuant to section 32-41ll, as amended by this act, shall contract with a third party for the selection of peer reviewers to review such application and make recommendations to said advisory committee with respect to the ethical and scientific merit of such application.

(b) Such peer reviewers shall: (1) Have a demonstrated knowledge and understanding of the ethical and medical implications of regenerative medicine research or related research fields, including, but not limited to, embryology, genetics or cellular biology; (2) have practical research experience in regenerative medicine research or related research fields, including, but not limited to, embryology, genetics or cellular biology; (3) work to advance regenerative medicine research; and (4) become and remain fully cognizant of the National Academies' Guidelines for Human Embryonic Stem Cell Research, as amended from time to time, and shall utilize said guidelines to evaluate any application pursuant to subsection (a) of this section.

(c) No peer reviewer shall review any application filed by such peer reviewer or by any eligible institution in which such peer reviewer has a financial interest, or with which such peer reviewer engages in any business, employment, transaction or professional activity.

(d) [Members of the Regenerative Medicine Research Peer Review

Substitute Senate Bill No. 957

Committee] Such peer reviewers may receive compensation from Connecticut Innovations, Incorporated, for reviewing [grant-in-aid] applications submitted [by eligible institutions] pursuant to section 32-41kk, as amended by this act. The rate of compensation shall be established by the board of directors of Connecticut Innovations, Incorporated.

(e) The Regenerative Medicine Research [Peer Review Committee] Advisory Committee shall establish guidelines for the rating and scoring of such applications. In establishing such guidelines, said advisory committee may consult with a third party contracted for the selection of peer reviewers pursuant to subsection (a) of this section.

[(f) All members of said peer review committee shall become and remain fully cognizant of the National Academies' Guidelines for Human Embryonic Stem Cell Research, as amended from time to time, and shall utilize said guidelines to evaluate each grant-in-aid application.]

Sec. 5. Section 32-41aa of the general statutes is repealed and the following is substituted in lieu thereof (*Effective from passage*):

For the purpose of this section and sections 32-41bb to 32-41dd, inclusive:

(1) "Administrator" means Connecticut Innovations, Incorporated, in its capacity as administrator of the Connecticut Bioscience Innovation Fund established pursuant to section 32-41cc.

(2) "Advisory committee" means the Bioscience Innovation Advisory Committee established pursuant to section 32-41bb.

(3) "Early-stage business" means a business that has been in operation for not more than [three] seven years and is developing or testing a product or service that is (A) not yet available for commercial

Substitute Senate Bill No. 957

release, or (B) commercially available in a limited manner, including, but not limited to, market testing of prototypes and clinical trials that have not begun phase II evaluation.

(4) "Eligible recipient" means a duly accredited college or university, a nonprofit corporation or a for-profit start-up or early-stage business.

(5) "Financial assistance" means any and all forms of grants, extensions of credit, loans or loan guarantees, equity investments or other forms of financing.

(6) "Return on investment" means any and all forms of principal or interest payments, guarantee fees, returns on equity investments, royalties, options, warrants and debentures and all other forms of remuneration to the administrator in return for any financial assistance offered or provided.

(7) "Phase II evaluation" means a phase II clinical trial conducted under the auspices of an independent peer-reviewed protocol that has been reviewed and approved by one of the National Institutes of Health or the federal Food and Drug Administration.

Sec. 6. (NEW) (*Effective July 1, 2015*) (a) Effective July 1, 2015, (1) the Business Environmental Clean-Up Revolving Loan Fund established under section 32-23z of the general statutes and in effect on June 30, 2015, and (2) the Environmental Assistance Revolving Loan Fund established under section 32-23qq of the general statutes and in effect on June 30, 2015, shall be combined with and become part of the Connecticut Growth Fund established under section 32-23v of the general statutes and in effect on June 30, 2015, provided all subfunds established under section 32-23qq of the general statutes shall become subfunds within the Connecticut Growth Fund. As of July 1, 2015, cash, notes, receivables and all other assets, liabilities, appropriations, authorizations, allocations and attributes then pertaining to the

Substitute Senate Bill No. 957

Business Environmental Clean-Up Revolving Loan Fund and the Environmental Assistance Revolving Loan Fund shall be transferred to the Connecticut Growth Fund. All loans, guarantees and lines of credit outstanding under sections 32-23z and 32-23qq of the general statutes on June 30, 2015, shall be treated as having been made, committed or extended from the Connecticut Growth Fund established under section 32-23v of the general statutes, and all payments received by the corporation on account thereof shall be credited or deposited to the Connecticut Growth Fund.

(b) On and after July 1, 2015, in addition to, and not in limitation of, the powers of the corporation in making loans from the Connecticut Growth Fund to eligible borrowers under section 32-23v of the general statutes, the corporation may make loans from the Connecticut Growth Fund to any person for any purpose as would have been permitted by, and subject to the same provisions in, section 32-23z or 32-23qq of the general statutes if made from the Business Environmental Clean-Up Revolving Loan Fund or the Environmental Assistance Revolving Loan Fund, respectively. The provisions of subsection (c) of section 32-23v of the general statutes shall not apply to the making of such loans.

(c) All applications for loans under sections 32-23z and 32-23qq of the general statutes pending on June 30, 2015, and authorized on or after July 1, 2015, shall be funded from the Connecticut Growth Fund established under section 32-23v of the general statutes.

Approved June 30, 2015